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Agricultural Memorandum No. 391a

Gramineae Pollen in London 6a - Effect of Wind direction

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The proportion of grassland in the counties surrounding London was reported in official returns as follows (in 1000 acres units):-

County	1961			1968		
	Total	Grass	Percentage	Total	Grass	Percentage
Essex	709	164	23	677	116	17
Kent	662	240	36	631	203	32
Surrey	186	78	42	175	72	42
Hampshire	648	246	38	631	221	32
Buckinghamshire	364	193	53	356	165	43
Hertfordshire	274	76	28	270	64	24

An approximation to the proportion of grassland lying in each quarter from NW London is thus:

		1961			1968		
		Total	Grass	Percentage	Total	Grass	Percentage
NW	(Bucks + $\frac{1}{2}$ Herts)	501	231	46	491	197	40
NE	(Essex + $\frac{1}{2}$ Herts)	846	202	24	802	148	$18\frac{1}{2}$
SE	(Kent)	662	240	36	631	203	32
SW	(Hants + Surrey)	834	324	39	806	294	37

The mean percentages are thus 43, 21, 34 and 38 respectively.

Taking into account that the largest stretch of built-up area from St Mary's Hospital, Paddington is in a southeast direction, the following adjustments for pollen source seem logical: (using SW as standard)

NW plus 10 per cent
NE minus 40 per cent
SE minus 25 per cent

It is difficult in this manner to put a value to "variable" wind days but an adjustment of minus 20 per cent does not seem unreasonable.

Tests with other adjustments included showed that this pattern was an improvement on that proposed in Ag. Mem. 391.

Any comments or suggestions on this paper should be referred to the Author.

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